

## NEW PRODUCT INFORMATION

### **The SD14, 14 megapixels (2,652×1,768×3 layers) Digital SLR camera**

The Sigma Corporation is pleased to announce the launch of the new Sigma SD14 Digital SLR camera.

The new SD14, powered by the 14 megapixels Foveon X3<sup>®</sup> direct-image-sensor, can reproduce high definition images rich in gradation and impressive three-dimensional detail. The SD14 Digital SLR camera features four JPEG recording modes, large and bright pentaprism viewfinder with 98% coverage, a built-in flash with a Guide Number of 11, 5-point AF system, a large 2.5" 150,000 pixel resolution LCD monitor as well as high resolution and user friendly design. The durable shutter mechanism has over 100,000 cycle life and is ideal for the demands of digital photography.



### **Development**

Sigma introduced its first digital SLR camera, the SD9, to the market in October 2002, and has established strong support from a wide range of photographers both amateur and professional alike. The second model, the SD10, released on the market in November 2003 continued to build on the support of loyal photographers. However, demand for JPEG's greater convenience in image handling has increased and in order to meet this demand the new SD14, powered by Foveon X3<sup>®</sup> direct image sensor, now includes JPEG mode with high image quality, high performance and versatility.

## Product Summary

### 1. 14 megapixels Foveon X3<sup>®</sup> direct image sensor

The Foveon X3<sup>®</sup> direct image sensor featured in the Sigma SD14 digital SLR can capture all primary RGB colors at each and every pixels arranged in three layers, insuring the capture of full and complete color. Using three silicon-embedded layers of pixel sensors, stacked to take advantage of silicon's ability to absorb red, green, and blue light at different respective depths, it efficiently reproduces color more accurately, and offers sharper resolution, pixel for pixel, than any conventional image sensor.

Until now, all other image sensors have featured a just single layer of pixels and each pixel captures only one color of light, which has been filtered through a single color filter. Since mosaic-based conventional image sensors capture only one-third of the color, complicated computation is required to interpolate the color they miss. Interpolation leads to color errors, color artifacts and a loss of image detail. Low pass filters must then be used to reduce color artifacts. The use of low pass filters adversely affects sharpness and resolution of the final image captured.



\* Foveon X3 is the registered trademark of Foveon.

### 2. In-camera JPEG mode offers added convenience

The SIGMA SD14 incorporates both RAW and JPEG image recording formats enabling photographers to capture the highest possible picture definition and small file sizes.

There are four JPEG recording modes: Super High (14.15 million pixels: 4608×3072 pixels), High (4.64 million pixels: 2640×1760 pixels), Medium (2.1 million pixels: 1776×1184 pixels), Low (1.03 million pixels: 1296×864 pixels).

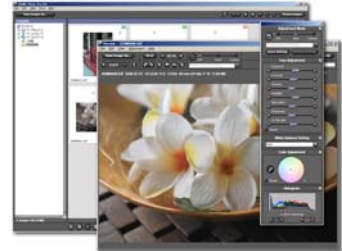
Super High can be used for A3 (297x420mm/11.6"x16.5") or larger prints. High for A4 size (210x297mm/8.2"x11.6") printing. Medium can be used for regular size printing. Low can be used for web-page and e-mail transmission. There is a choice of three JPEG recording quality: Fine, Normal and Basic.

### 3. Versatile and easy to use SIGMA Photo Pro 3.0 exclusive software, supplied with the SD14

The SD14 comes complete with SIGMA Photo Pro 3.0 software, a RAW image developer that converts all RAW data quickly and easily. Adjustments can be made in three separate modes. The X3F Mode stores the original settings of the image at the point of capture. In the Auto Adjustment Mode, the software analyzes and automatically makes adjustments to the RAW data. The Custom Mode allows the photographer to make individual adjustments (exposure, contrast, shadow, highlight, saturation, sharpness and

fill-light for example). Subtle or dramatic changes can be made by the photographer easily and quickly by simply adjusting the slider controls within the software.

The X3F Mode stores the original settings of the image at point of capture. Photographers` personal modifications can be saved to the RAW, X3F file for future use. SIGMA Photo Pro 3.0 supports 8-bit TIFF, 16-bit TIFF, and JPEG file formats and also outputs images in color space (s.a. sRGB and AppleRGB). The default setting for resolution is the same as the resolution selected when capturing the image on the camera (High, Medium, or Low). It is also possible to half, (for sending via e-mails) or double (for high quality enlargements, max. 18.58 million pixels : 5,280×3,520pixels) the resolution when processing the image.



#### **4. Image Sensor Dust Protector**

Most digital SLR cameras are typically vulnerable to dust entering the body especially when the lens is removed for changing. Dust and dirt entering through the lens mount of a digital camera can be seriously detrimental to image quality. The dust protector of the SIGMA SD14 prevents dust from entering and adhering to the image sensor. Even if dust adheres to the dust protector it will not have an adverse influence on image quality as the dust protector is located away from the image sensor and is therefore out of focus.



#### **5. Large and bright pentaprism viewfinder**

The SD14 is equipped with a newly developed pentaprism viewfinder, which has 98% (vertical and horizontal) coverage with 0.9x magnification, an 18mm eye point and -3 to +1.5 dpt dioptric adjustment.



#### **6. Large 2.5" LCD monitor**

The SD14 camera features a new, large 2.5 inch, 150,000 pixel resolution LCD monitor. The LCD monitor displays 100% of the image, allowing the photographer to easily and accurately confirm the image composition. It features playback options including single frame, thumbnail display (9 images), and three types of magnification (which is achieved by use of the 4-way controller). Shutter speed, aperture and other settings can be seen by pressing the INFO button. The large menu interface makes reviewing images and navigating menu options easy.



## 7. Reliable and Durable Shutter

The durable focal plane shutter mechanism has a life cycle of over 100,000 exposures. The shutter is ideally suited to the requirements of digital cameras. This new shutter dramatically reduces the amount of dust and dirt from the shutter mechanism. The photographer can enjoy taking pictures without worrying about dirt and dust adhering to the image sensor either from inside or outside the camera.

## 8. Fast and precise focusing with 5-point AF

The new auto focus sensor features 5 focusing points (center, left, right, up and down) ensuring consistently fast and precise focusing. The AF metering features a cross type sensor in the center of the screen. Selecting the AF point can be done automatically or manually by the photographer.



## 9. High speed continuous shooting

The SD14 features a continuous shooting speed of 3 frames per second. Continuous shooting can be accomplished in conjunction with the camera's predictive auto focus function when photographing fast moving subjects. The camera's high-speed image processing circuits are capable of handling large data files generated by the high-resolution 14 megapixels high quality sensor. The number of images that can be captured in continuous shooting mode is dependent upon the resolution setting; High - 6 frames, Medium - 12 frames and Low - 24 frames. These figures apply in either RAW or JPEG mode.

## 10. Built-in Flash

The Sigma SD14 camera's built-in flash offers an angle of coverage of 17mm (equivalent to 28mm with 35mm full size) lens with a guide number of 11 (ISO 100). Built-in flash can be synchronized to a shutter speed up to 1/180 sec. This built-in flash enables automatic S-TTL shooting, which allows simple, easy control of advanced photography techniques.



## 11. Easy to use multifunction interface

The new layout of control buttons insures quick identification of the desired functions and easy use of the multifunction interface in operating camera settings. Clearly marked buttons make it easy for the photographer to display and adjust the most important settings, namely ISO, resolution, and white balance.



JPEG quality and file type, and white balance, on one screen, using one button. The top LCD panel incorporates a backlight, which enables the camera to be easily controlled in low light or dark conditions.

## 12. Mirror lock-up mechanism prevents camera shake

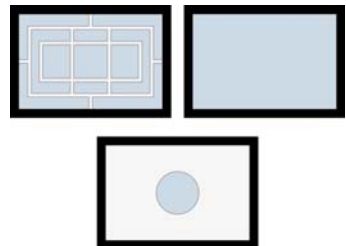
The mirror lock-up mechanism raises the mirror thus preventing vibration when the shutter is released. This prevents camera shake, and is especially effective for macro photography, using extremely long telephoto lenses or scientific work. Use of a remote controller (sold separately) or cable release (sold separately) also reduces the possibility of camera shake.



## 13. Three types metering mode

The Sigma SD14 is equipped with three types of metering mode: 8-segment Evaluative Metering, Center Area Metering and Center Weighted Average Metering. This enables the photographer to select the metering mode depending on subject and situation. Exposure compensation function allows the photographer to override the exposure value set by the camera's exposure meter.

Auto Bracketing function allows the exposure to be adjusted by 1/3 EV increments up to  $\pm 3$  EV from the exposure automatically set by the camera. In situations where it is difficult to determine proper exposure, the auto bracketing function allows a sequence of pictures to be taken of the same subject at three different exposure levels; Appropriate Exposure, Under Exposure and Over Exposure.



## 14. Power Source

The Lithium-ion Battery BP-21 (included with the camera) can shoot approximately 500 images on one full charge. It takes about 120 minutes to fully charge with Battery Charger BC-21 (also included). The optional power grip PG-21 has a vertical shutter release button and can hold two BP-21 batteries, supplying more than enough power for most shoots. The AC Adapter SAC-21 (sold separately) enables the Sigma SD14 to obtain power from the mains supply.



## 15. The top LCD panel

The top LCD panel allows the photographer to quickly and accurately confirm information such as resolution setting, metering mode, battery status, and the number of images that can be recorded on the CF card. It also incorporates an orange



backlight, which enables the camera to be easily controlled in low light or dark conditions.

## **16. Optional accessories**

The SD14 can be used with over 40 Sigma lenses such as ultra-wide, ultra-telephoto, macro, and fisheye. The EF-500 DG SUPER, EF-500 DG ST, and EM-140 DG flashguns offer fully automatic S-TTL flash dedication. Other accessories include the power grip (PG-21), cable release (CR-21), remote controller (RS-31) and the AC adaptor (SAC-21). These accessories ensure that the SD14 system is both user-friendly and versatile.



## 【Major Specifications】

Format	AF / AE Digital SLR Camera
Storage Media	CompactFlash (Type I/II), Microdrive; (FAT32 compatible)
Image Sensor Size	20.7×13.8mm
Lens Mount	SIGMA SA bayonet mount
Compatible Lenses	SIGMA SA mount interchangeable lenses
Angle of View	Equivalent to approx 1.7x the focal length of the lens (for 35mm cameras)
Image Sensor	Foveon X3 <sup>®</sup> direct image sensor (CMOS)
Number of Pixels	(Effective pixels) 14.06 MP (2,652 X 1,768 X 3)
Aspect Ratio	3:2
Still Image Format	Exif2.21, DCF2.0
Image Recording Format	Lossless compression RAW data (12-bit), JPEG (Super High, High, Medium, Low)
Capture File Size	<p>RAW</p> <p>(1) High : Approx 13.3MB (2,640 x 1,760 x 3layers)</p> <p>(2) Medium : Approx 6.6MB (1,776 x 1,184 x 3layers)</p> <p>(3) Low : Approx 3.3MB (1,296 x 864 x 3layers)</p> <p>JPEG</p> <p>(1) Super High/Fine : Approx 7.5MB (4,608 x 3,072)</p> <p>Super High/Normal : Approx 4.6MB (4,608 x 3,072)</p> <p>Super High/Basic : Approx 3.2MB (4,608 x 3,072)</p> <p>(2) High/Fine : Approx 3.3MB (2,640 x 1,760)</p> <p>High/Normal : Approx 1.9MB (2,640 x 1,760)</p> <p>High/Basic : Approx 1.3MB (2,640 x 1,760)</p> <p>(3) Medium/Fine : Approx 1.6MB (1,776 x 1,184)</p> <p>Medium/Normal : Approx 0.9MB (1,776 x 1,184)</p> <p>Medium/Basic : Approx 0.6MB (1,776 x 1,184)</p> <p>(4) Low/Fine : Approx 0.8MB (1,296 x 864)</p> <p>Low/Normal : Approx 0.5MB (1,296 x 864)</p> <p>Low/Basic : Approx 0.3MB (1,296 x 864)</p>
Continuous shooting speed	3 frames/second
Maximum number of frames for continuous shooting	High: 6 frames Medium: 12 frames Low: 24 frames
Interfaces	USB (USB2.0), Video Out (NTSC/PAL)
White Balance	8 types (Auto, Sunlight, Shade, Overcast, Incandescent, Fluorescent, Flash and Custom)
Viewfinder	Pentaprism SLR viewfinder
Viewfinder Frame Coverage	98% vertical, 98% horizontal
Viewfinder Magnification	0.9 x (50mm F1.4-infinity)
Eye point	18mm
Diopter Adjustment Range	-3dpt to + 1.5dpt
Auto Focus Type	TTL phase difference detection system
AF Operating Range	EV 0 to +18 (ISO100)
Focus Mode	Single AF, Continuous AF (with AF motion prediction function), Manual

Metering Systems	(1) 8 segment Evaluative Metering (2) Center Metering (3) Center-Weighted Average Metering
Metering Range	EV 1 to 20 (50mm F1.4: ISO100)
Exposure Control System	(P) Program AE (Program Shift is possible) (S) Shutter Speed Priority AE (A) Aperture Priority AE (M) Manual
ISO Sensitivity	Equivalent to ISO 100, 200, 400, 800 and 1600
Exposure Compensation	±3EV (in 1/3 steps)
Auto Bracketing	3 different exposure levels: Appropriate, Under Exposure, and Over Exposure, in 1/3EV steps up to ±3EV
Shutter Type	Electronically controlled focal plane shutter
Shutter Speed	1/4000 – 30 sec. + bulb (up to 30 sec.)
Built-in flash	Guide Number of 11, coverage 17mm focal length
External Flash Synchronization	Hot shoe (contact X synchronization at 1/180 sec. or less, with dedicated flash linking contact)
LCD Monitor	2.5", low-temperature polysilicon TFT color LCD monitor, approx. 150,000 pixels Coverage area 100% with white LED backlight
Reviewing Images	(1) Single frame display, (2) Multi display [9 frames], (3) Zoom, (4) Slide Show
LCD Monitor Language	Chinese / English / French / German / Italian / Japanese / Korean / Spanish
Power Source	Li-ion Battery Pack BP-21, Battery Charger BC-21, AC adapter (optional)
Dimensions	144mm/5.7" (W) × 107.3mm/4.2" (H) × 80.5mm/3.2" (D)
Weight	700g/24.7oz (without batteries)

\* Product external appearance, specification, etc. may change without notice to allow for improvements.

### **【SD14 accessories】**

Li-ion power battery BP-21, Battery charger BC-21, USB cable, video cable, neck strap, eye cap, body cap, eyepiece cap, SIGMA Photo Pro 3.0 CD Rom, SD14 instruction manual.



## **【SD14 Optional Accessories】**

### **Electronic Flash EF-500 DG SUPER**



The high power EF-500 DG Super flash enables S-TTL automatic flash metering. It has a high-speed synchronization function, which can be used at high shutter speeds and wireless flash connectivity.

### **Electronic Flash EF-500 DG ST**



The high-powered auto zoom flash featuring automatic flash metering using S-TTL operation. Allows perfect flash shots effortlessly. This flashgun also includes an automatic zoom function and bounce-head function.

### **Power Grip PG-21**



This specially designed battery pack (PG-21) with vertical grip is dedicated for SD14 use, and can hold two BP-21 batteries.

### **Remote Controller RS-31**



Remote control allows the photographer to take self-portraits or get into group shots. Used in conjunction with the Mirror Lock-Up function, it can reduce the possibility of image-blurring camera shake, making it particularly useful for macro or telephoto shooting.

### **Cable Release Switch CR-21**



The CR-21 Cable Release is an alternative to the RS-31 Remote Controller offering a wired connection to the camera. This reduces the risk of camera shake, which can result in blurred images. Especially useful when using Mirror up and super-telephoto lenses.

### **AC Adapter**



This is used to provide a constant electricity supply when shooting in the studio, or taking indoor shots. It is also recommended for use when connecting the camera to your computer to transfer data.